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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte CHRISTOPHER PATRICK ABBEY,
TROY DAVID ARMSTRONG, WILLIAM JOSEPH ARMSTRONG,
and GREGORY MICHAEL NORDSTORM

Appeal 2008-0257
Application 10/624,352
Technology Center 2100

Decided: August 12, 2008

Before LANCE LEONARD BARRY, JEAN R. HOMERE, and
JAY P. LUCAS, *Administrative Patent Judges*.

BARRY, *Administrative Patent Judge*.

DECISION ON APPEAL

I. STATEMENT OF THE CASE

A Patent Examiner rejected claims 7-9, 11-14, 21-23, 25-28, 37, 40, 41, 43, 44, 47, and 48. The Appellants appeal therefrom under 35 U.S.C. § 134(a). We have jurisdiction under 35 U.S.C. § 6(b).

A. INVENTION

The invention at issue on appeal detects resources in a logically partitioned computer system. By logically partitioning a computer system's resources, different computing environments can be provided on the same physical computer system. (Spec. 1.)

For its part, the Appellants' partition manager uses a persistent resource database to determine which resources have been previously detected and to determine which resources are required to start a logical partition. Once all the resources required for a logical partition are detected, the partition is started. Accordingly, a logical partition may be started as soon as all of its resources are available, without waiting on the resources of other logical partitions. Furthermore, a missing required resource will prevent a logical partition from starting, thus avoiding the crash of a logical partition due to missing resources. (*Id.* 28.)

B. ILLUSTRATIVE CLAIM

Claim 7, which further illustrates the invention, follows.

7. An apparatus comprising:

- at least one processor;
- a memory coupled to the at least one processor;
- a plurality of logical partitions defined on the apparatus;
- a persistent resource database residing in the memory, the resource database including a list of resources owned by each of the plurality of logical partitions, where the resources were detected in previous power on cycles of the apparatus; and

a resource detection mechanism residing in the memory and executed by the at least one processor, the resource detection mechanism determining from the resource database a set of required resources owned by a selected logical partition, detecting each resource as the resource is initialized, detecting when at least one required resource for the selected logical partition is not powered up, initiating power up of the at least one required resource that is not powered up, and starting the selected logical partition when all required resources owned by the selected logical partition have been detected

C. REJECTIONS

Claims 7-9, 11-14, 21-23, 25-28, 37, 40, 41, 43, 44, 47, and 48 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent Application Pub. No. 2002/0052914 ("Zalewski").

II. ISSUE

"Rather than reiterate the positions of the parties *in toto*, we focus on an issue therebetween." *Ex parte Kuruoglu*, No. 2007-0666, 2007 WL 2745820, at *2 (BPAI 2007). The Examiner makes the following findings.

The statuses of the resources, such as CPU [i.e., central processing unit] being plugged into a slot and to be powered up for usage is detected and recorded in a data structure having a Physical Present bit (PP bit), PP bit when set, it indicates that the CPU resource is powered up. Conversely, when the bit is not set, it indicates that the CPU resource is powered down.

(Ans. 6.) The Appellants make the following argument.

Zalewski does indeed teach a CPU can be plugged in and powered up. Once plugged in and powered up, the CPU may be detected by reading the Processor Present bit. However, neither of these steps reads on the limitation in the claims of "detecting

when at least one required resource for the selected logical partition is not powered up."

(Reply Br. 5.) Therefore, the issue is whether the Examiner has shown that Zalewski detects when at least one required resource for a logical partition is not powered up.

III. LAW

"[A]nticipation of a claim under § 102 can be found only if the prior art reference discloses every element of the claim" *In re King*, 801 F.2d 1324, 1326 (Fed. Cir. 1986) (citing *Lindemann Maschinenfabrik GMBH v. American Hoist & Derrick Co.*, 730 F.2d 1452, 1457 (Fed. Cir. 1984)). "[A]bsence from the reference of any claimed element negates anticipation." *Kloster Speedsteel AB v. Crucible, Inc.*, 793 F.2d 1565, 1571 (Fed. Cir. 1986).

IV. ANALYSIS

Here, the paragraph of Zalewski cited by the Examiner follows in pertinent part.

Each HWRPB [i.e., hardware restart parameter block] which is created by a console program will contain a CPU slot-specific database for each CPU that is in the system, or that can be added to the system without powering the entire system down. Each CPU that is physically present will be marked "present", but only CPUs that will initially execute in a specific partition will be marked "available" in the HWRPB for the partition. The operating system instance running on a partition will be capable of recognizing that a CPU may be available at some

future time by a present (PP) bit in a per-CPU state flag fields of the HWRPB, and can build data structures to reflect this.

(¶ 0057.)

As noted by the Appellants, "when the Processor Present bit in Zalewski is one, this indicates a CPU that is both present and powered on." (Reply Br. 5.) We agree with them, moreover, that "when the Processor Present bit is zero, [one] cannot assume, as stated by the [E]xaminer, that the corresponding CPU not powered up. Indeed, when the Processor Present bit is zero in Zalewski, this means the CPU is not even present." (*Id.*)

V. CONCLUSION

The absence of detecting when at least one required resource for a logical partition is not powered up negates anticipation. Therefore, we reverse the anticipation rejection of claims 7-9, 11-14, 21-23, 25-28, 37, 40, 41, 43, 44, 47, and 48.

REVERSED

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